
Guidelines for SINTEF Technical Approval for

Tap with boiling water

1. General information about SINTEF Technical Approval

General information about SINTEF Technical Approval procedures is available at <http://www.sintefcertification.no/en-us/PortalPage.aspx?pageid=180>

2. Properties to be included in the approval and how the properties are determined

SINTEF Technical Approval shall normally include a declaration of the following product properties, in cases which the standards overlap, one of them is chosen:

Table 1. Properties normally considered

Component	Test method
Marking of components	Visual control
Backflow prevention	EN 1717: <i>"Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow"</i>
Magnetic valve	NT VVS 094: <i>"Active leakage detectors: Reliability"</i> NT VVS 100: <i>"Magnetic valves: Functional and operational qualities"</i> NEC IEC 60730-2-8: <i>"Automatic electrical controls for household and similar use - Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements"</i>
Safety valve	EN 1489: <i>"Building valves - Pressure safety valves - Tests and requirements"</i>
Pressure reducing valve	EN 1567: <i>"Building valves - Water pressure reducing valves and combination water pressure reducing valves - Requirements and tests"</i>
Expansion valve	EN 1488: <i>"Building valves - Expansion groups - Tests and requirements"</i>
Tap	EN 817: <i>"Sanitary tapware - Mechanical mixing valves (PN 10) - General technical specifications"</i> EN 200: <i>"Sanitary tapware - Single taps and combination taps for water supply systems of type 1 and type 2 - General technical specification"</i> NKB 4, punkt 3.3.2: <i>"Product rules for sanitary taps for hot and cold water systems – Dissolution of heavy metals"</i>

Table 1 Continued

Component	Test method
Fittings	EN 1254: <i>"Copper and copper alloys - Plumbing fittings – Part 1-7"</i>
Supply hoses	EN 13618: <i>"Flexible hose assemblies in drinking water installations - Functional requirements and test methods"</i> EN ISO 8795: <i>"Plastics piping systems for the transport of water intended for human consumption - Migration assessment - Determination of migration values of plastics pipes and fittings and their joints"</i> DVGW W 270 EN 1420-1: <i>"Influence of organic materials on water intended for human consumption - Determination of odour and flavour assessment of water in piping systems"</i>
Filter	EN 13443: <i>"Water conditioning equipment inside buildings - Mechanical filters - Requirements for performances, safety and testing"</i> NT VVS 096: <i>"Drinking water, mechanical filters: Reliability"</i>
Boiler	NKB 4, punkt 3.3.2: <i>"Product rules for sanitary taps for hot and cold water systems – Dissolution of heavy metals"</i> EN 60529: <i>"Degrees of protection provided by enclosures (IP Code)"</i> EN 60335-2-21: <i>"Household and similar electrical appliances - Safety - Part 2-21: Particular requirements for storage water heaters"</i> Tetthetsprøving v/16 bar
Thermostatic valve (boiler)	EN 60335-2-21: <i>"Household and similar electrical appliances - Safety - Part 2-21: Particular requirements for storage water heaters"</i>

Requirements concerning material and product properties related to impact on the environment is available at;

<https://www.sintefcertification.no/file/index/1867>

3. Special conditions for use and installation

The test methods are common European methods, but national requirements for use and installation in each country are applied For SINTEF Technical Approval is the following applicable:

- The boiling water tap shall be installed in such a way that possible leakages will not damage other installations or building parts
- A possible leakage should be easily detected. The water supply should be automatically shut off in the event of a leakage.
- After installation, the tap and its components should be easily accessible for maintenance and replacement of parts.
- The boiler shall only be made from stainless material.
- The product shall not influence drinking water in a negative way by adding heavy metals or inflicting the smell or taste, see Clause 4.
- The overflow must be securely connected to the sewer pipe.
- The water temperature in the boiler shall not be under 65 °C.

4. Description of the manufacturer's factory production control

As a basis for the approval SINTEF must receive a copy of the description of the manufacturer's control plan for the product. This may be the relevant part of the manufacturer's quality control system for the product, or other documentation describing the manufacturer's factory production control. The person responsible for the running of the factory production control shall be identified.

The control plan should include the controls for

- Receiving materials
- Manufacturing process
- Finished product
- Marking and storing

Including how often the controls are carried out, how they are performed and by whom..

The factory production control description shall include what measures are taken when faults are observed in the production or product.

5. Supervisory production control

All products with a SINTEF Technical Approval are subject to a supervisory product and production control performed by a independent body.

When the manufacturer has a quality system which is certified according to ISO 9001 the revisions of the quality system may satisfy the required supervisory factory production control. A condition is that the quality system revisions performed by the certification body is sufficient detailed in relation to the production of the approved product. In some cases the supervisory production control may also be covered by factory production control performed by certification bodies in relation to already existing national or other product certification schemes.

SINTEF shall have a copy of agreements between the manufacturer and the control body when the supervisory production control is performed by another control body. If the manufacturer does not have an acceptable existing agreement for supervisory production control an agreement must be established with SINTEF or an independent control body which is accepted by SINTEF. An initial factory inspection performed by SINTEF is normally required before a new SINTEF Technical Approval is issued.

6. Application for SINTEF Technical Approval and project management

Information regarding application and project management for SINTEF Technical Approval is available at;

<https://www.sintefcertification.no/file/index/2980>

7. More information

Further information about SINTEF Technical Approval can be found on www.sintefcertification.no.

Contacts:

- Research leader Lars-Erik Fiskum, lars-erik.firkum@sintef.no, +47 920 23 737
- Senior engineer Geir Lippe Stavnes, geirlippe.stavnes@sintef.no, +47 930 04 561